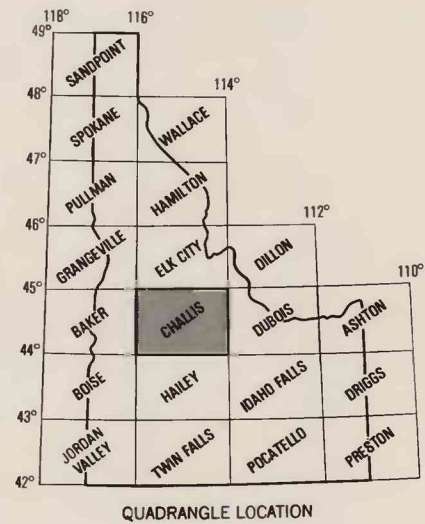
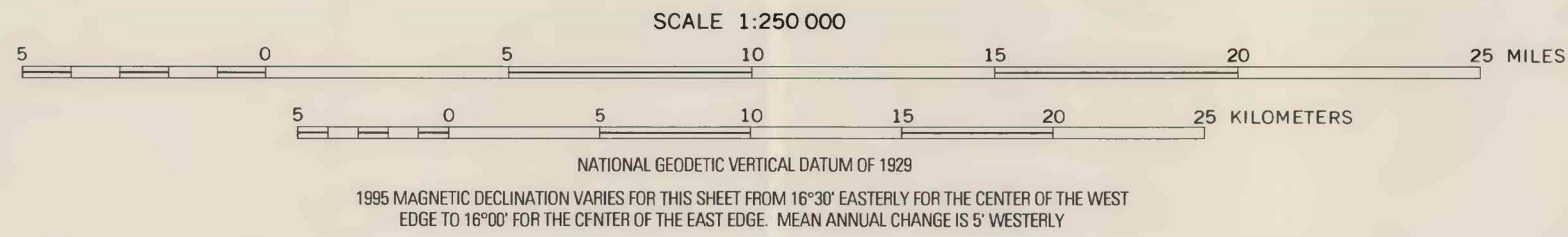


Base modified from U.S. Geological Survey, 1957.
Limited revision 1983.
100,000-foot grids based on Idaho coordinate system,
central and west zones.



EXPLANATION OF RESOURCE POTENTIAL

Area having resource potential for mercury replacement deposits—
See table 31 for scoring of recognition criteria

3 High potential—Area 3
2 Moderate potential—Area 2
1 Low potential—Areas 1, 4–9

1 Mine
1 Pretty Maid
2 Hermes
3 Fern

LIST OF GEOLOGIC TERRANES

al Alluvial terrane
pl Eocene Plutonic terrane
vo Challis volcanic terrane
ba Idaho batholith terrane
bs Black shale terrane
ca Carbonate terrane
ms Proterozoic terrane
Trans-Challis fault system terrane

Regions of overlap between carbonate terrane and black shale terrane

Mostly rock glaciers; alluvial fans; landslide debris; talus; and terminal, end, and lateral moraines. Also includes Miocene volcanic and sedimentary rocks and noncarbonate roof pendants in the Idaho batholith of undivided (Paleozoic? or Proterozoic?) age

Terrane boundary

Boundaries of calderas and other volcano-tectonic structures—Dashed where approximately located

DEFINITIONS OF RESOURCE POTENTIAL

High mineral resource potential exists in areas where geologic, geochemical, and geophysical characteristics favorable for resource accumulation are known to be present, or where enough of these characteristics are present to give strong support to genetic models favorable for resource accumulation and where evidence shows that mineral concentration—mineralization in the broad sense—has taken place (Taylor and Steven, 1983, p. 1269).

Moderate mineral resource potential exists in areas where geologic, geochemical, and geophysical characteristics favorable for resource accumulation are known or can reasonably be inferred to be present but where evidence for mineralization is less clear or has not yet been found (Taylor and Steven, 1983, p. 1269).

Low mineral resource potential exists in areas where geologic, geochemical, and geophysical characteristics are unfavorable, where evidence indicates that mineral concentrations are unlikely, or where requirements for genetic models cannot be supported (Taylor and Steven, 1983, p. 1269).

Unknown mineral resource potential exists where the level of knowledge, at an appropriate scale, is so inadequate that to classify potential as high, moderate, or low would be misleading (Taylor and Steven, 1983, p. 1269).

In some instances an assignment of no mineral resource potential for a particular ore deposit type or types has been given to specific areas within the Challis quadrangle. In these cases the occurrence of the particular ore deposit type is dependent on the presence of a specific lithology. Known absence of the required rock type precludes the occurrence of the ore deposit.

RESOURCE POTENTIAL FOR MERCURY REPLACEMENT DEPOSITS IN THE CHALLIS 1° x 2° QUADRANGLE, IDAHO

By
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1995